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~~3438~~

*We Claim*

~~Patent claims~~

- 5 1. A method for the determination of combustion misfires in an internal combustion engine having a plurality of cylinders, wherein at least two successive compression times and expansion times are determined for at least one cylinder of the internal combustion engine, for the determination of combustion misfires a comparison of the change in the compression times with the change in the expansion times being carried out, and the result of the comparison being a measure of a combustion misfire.
- 10 2. The method as claimed in claim 1, wherein the method is carried out as function of predeterminable parameters of the internal combustion engine and/or of predeterminable ambient parameters of the internal combustion engine.
- 15 3. The method as claimed in claim 1 ~~or 2~~, the method being carried out for each cylinder of the internal combustion engine.
- 20 4. The method as claimed in ~~one of claims 1 to 3~~, wherein, after the detection of at least one combustion misfire, in particular after a predeterminable number of combustion misfires, a fault signal is generated and emitted.
- 25 5. The method as claimed in ~~one of the preceding claims~~, wherein a threshold value for the measure of a combustion misfire is formed at least as a function of at least one parameter of the internal combustion engine, no fault signal being generated if the comparison result exceeds or falls short of this threshold value.
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*claim 1*

*claim 1*

*claim 1*

6. The method as claimed ~~in one of the preceding~~  
~~claims~~, wherein the method is not carried out in the  
case of a deviation from permissible value ranges for  
the predeterminable parameters of the internal  
5 combustion engine and/or for the predeterminable  
ambient parameters of the internal combustion engine.

7. The method as claimed ~~in one of the preceding~~  
~~claims~~, used in an on-board diagnostic device at least  
for the internal combustion engine driving a vehicle,  
10 in particular a passenger vehicle.

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